A NEW SPECIES OF *TRIBOLIUM* FROM ARIZONA (COLEOPTERA: TENEBRIONIDAE)

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Abstract

A new species, *Tribolium setosum,* is described from Arizona. Characteristics which distinguish it from similar species are presented.

Because several species of *Tribolium* are ubiquitous and important pests of various kinds of cereal products, the genus is one of the most thoroughly studied among the Tenebrionidae. The most recent comprehensive taxonomic treatment of the genus is that of Hinton (1948) in which 17 species were described as new and interspecific relationships were established on a world-wide basis. I have used Hinton's paper on numerous occasions and found it to be outstanding in enabling one to quickly and confidently identify species of *Tribolium.*

It was a genuine surprise, therefore, when the following remarkable new species appeared in 2 different collections of Tenebrionidae sent to me for identification.

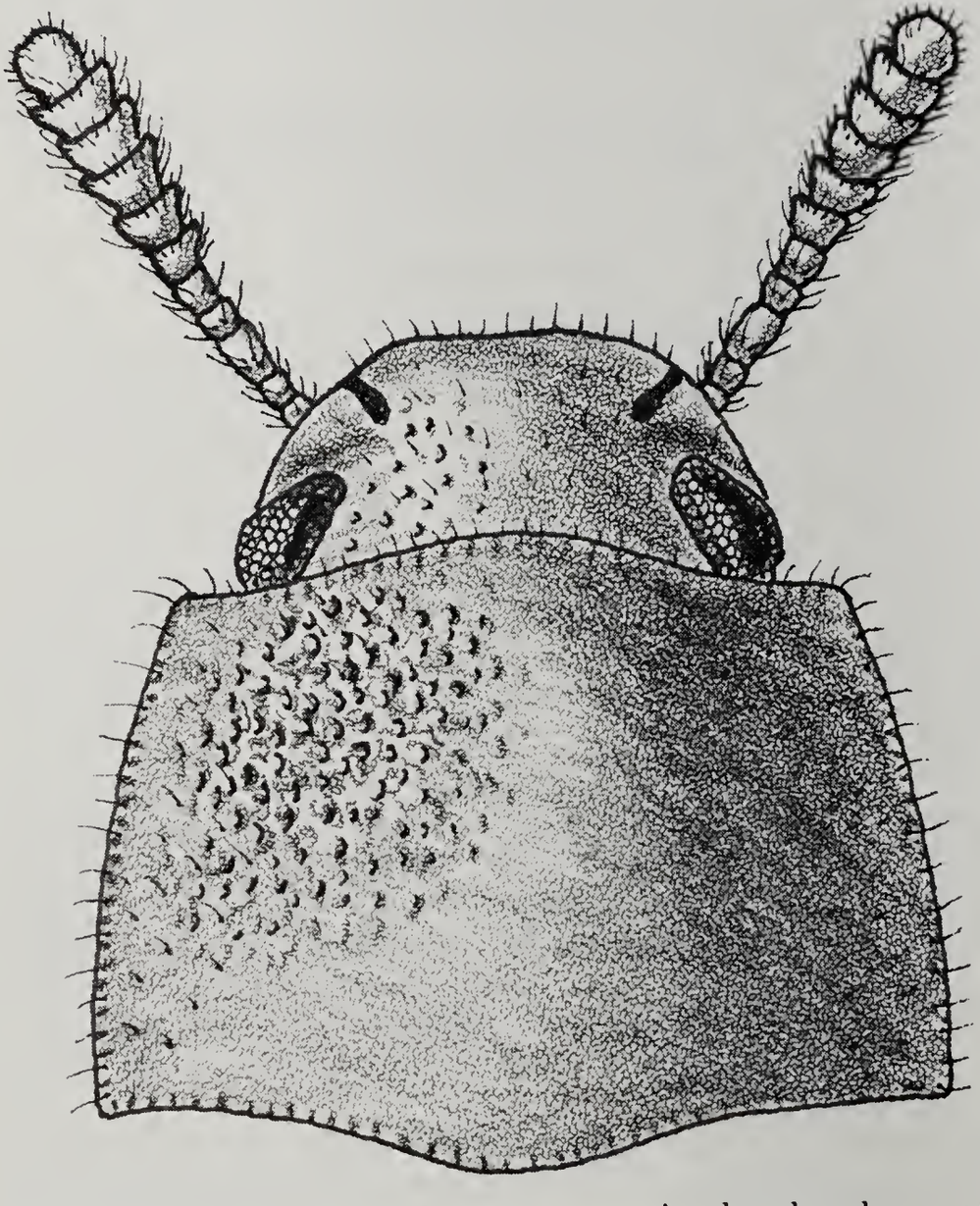
Tribolium setosum Triplehorn, **new species**

Holotype (sex undetermined): Body subparallel-sided, moderately convex, reddish-brown, shining, clothed both dorsally and ventrally with very fine, pale, sparsely distributed setae which are erect on dorsum and inclined caudad on ventral surfaces. Those of elytra confined to crests of elytral keels. *Head* shallowly but coarsely and confluently punctured between eyes; epistomal margin truncate, rounded laterally and smoothly continuous with genae; eye large, strongly reniform, gena extending about to middle (5 facets in narrowest part), ventral lobe slightly larger than dorsal lobe; eyes separated ventrally by about twice diameter of one eye; lateral angle of maxillary fossa blunt (as in *T. parallelum*); antenna with six-segmented club which is not abruptly differentiated; terminal segment with apex strongly rounded. Pronotum 3/4 as long as broad, broadest behind middle, base distinctly broader than apex; sides feebly arcuate and not at all sinuate; basal and apical margins feebly bisinuate; apical angles not at all prominent; basal angles slightly obtuse; base and sides thickly margined, marginal bead continuing around apex but absent about middle third of apical margin; disc irregularly, coarsely and confluently punctured, individual punctures not well defined; marginal setae evident even at low magnifications. *Elytra* with characteristic keels on elytral intervals relatively low; sutural keel scarcely evident, 6th widely and repeatedly interrupted, 8th continuous but poorly defined; striae evident only as deep-seated pigment spots, surface between keels minutely rugulose; setae on crests of keels evident only when viewed laterally, marginal setae fairly conspicuous. *Ventral surface* finely and sparsely punctured, each puncture bearing a fine, pale, seta which is inclined caudad; lateral marginal lines complete on abdominal sterna 1 and 2, abbreviated posteriorly on sternum 3; sternum 5 without marginal line. Length: 4.7mm; width: 1.6mm.

Types: Holotype, Arizona, Pima County, Tucson, 30 July, 1968, K. Stephan (USNM #75361); paratype, Arizona, Pima County, Tucson Mountains (3000′), 6 July, 1967, David E. Bixler (Ohio State University Collection of Insects and Spiders).

Discussion: This species may be distinguished from all other known species of *Tribolium* by the fine, erect setae of the head, pronotum and elytral keels. In Hinton's 1948 key it will run to *T. linsleyi* Hinton, which lacks the conspicuous dorsal setae, has the fifth abdominal sternum distinctly margined, is larger in size, darker in color, has the ventral surface coarsely punctured, etc. *T. setosum* clearly belongs to Hinton's *brevicorne* group, members of which appear to be indigenous to the Western Hemisphere. The *brevicorne* group is characterized by having the marginal bead of the pronotum continuing smoothly around the apical angles and along the apical margin. The group consists of 6 species (including *T. setosum*): *T. carinatum* Hinton from Argentina, *T. gebieni* Uttenboogaart from Brazil and Paraguay, *T. linsleyi* Hinton from Mexico, and *T. brevicorne* (LeConte) and *T. parallelum* (Casey) from western United States.

David E. Bixler provided considerable ecological data for the paratype. It was taken in a pitfall trap at Gates Pass in the Tucson Mountains west of Tucson, Arizona. The plant community was a palo verde-saghuaro alluvial association. Although a battery of 30 traps saturated the area for the full summer, only the single specimen was taken.



Tribolium setosum Triplehorn, new species, head and pronotum.

I thank the 2 outstanding collectors, David E. Bixler and Karl H. Stephan, for providing the specimens upon which this paper is based and for their generosity in allowing me to place those specimens in institutional collections.* D. J. Borror and T. J. Spilman contributed helpful suggestions in the preparation of this paper for which I am grateful.

* Since the description was prepared, the Karl Stephan Collection was sold to the Florida State Collection of Arthropods (FSCA). Through Dr. Robert E. Woodruff, permission was obtained to deposit the Holotype in USNM as a gift from FSCA.

Reference

Hinton, H. E. 1948. A synopsis of the genus *Tribolium* Macleay, with some remarks on the evolution of its species-groups (Coleoptera:Tenebrionidae). Bull. Ent. Res. 39:13-56.

BOOK NOTICES

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—Paul P. Shubeck